

Additionally, the specification has been amended to correct a number of inadvertent typographical errors. No new matter has been added. Accordingly, entry of the amendments to the specification is believed to be warranted and is respectfully requested.

I. Affirmation of Telephone Restriction:

Affirmation is hereby made of the provisional election of Group I (claims 1-46) made during the telephone call of July 13, 2001 between Examiner Lee and the undersigned. The non-elected claims have been cancelled. Applicants reserve the right to file a divisional application directed to such claims at a later date.

II. The 35 U.S.C. § 112 Second Paragraph Rejections:

Claims 1, 4, 8, 11, 13, 14, 16, 30, 38, 41 and 42 have been rejected under 35 U.S.C. § 112 second paragraph, as indefinite as specified on pages 5 and 6 of the Office Action dated July 17, 2001.

Claims 1, 4, 8, 11, 13, 14, 16, 30, 38, 41 and 42 have been amended to read as shown above. In view of the amendments made to claims 1, 4, 8, 11, 13, 14, 16, 30, 38, 41 and 42, it is believed that the above-mentioned indefiniteness rejections of these claims have been rendered moot. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, second paragraph, is respectfully requested.

III. The Objections to Claims 8, 9, 18, 33, 36 and 37:

Claims 8 and 18 have been objected to as informal due to a typographical error contained therein. Claims 9 and 36 have been objected to under 37 CFR § 1.75 as being substantial duplicates of claims 1 and 25, respectively. Claims 33 and 37 have been objected to as informal in view of the word "adhesion".

In view of the above objections, claims 8 and 18 have been amended to correct the inadvertent typographical errors contained therein; claims 9 and 36 have been amended and are believed not to be duplicative of claims 1 and 25, respectively; and claims 33 and 37 have been amended to change the word "adhesion" to "adhesive".

Accordingly, it is believed that the above objections have been rendered moot and withdrawal thereof is respectfully requested.

IV. The 35 U.S.C. § 102(b) Rejections:

Claims 1, 3 to 8, 10 to 17 and 19 to 21 have been rejected under 35 U.S.C. §102(b) over Mallya et al. (U.S. Patent No. 4,812,541) or Plamthottam et al. (U.S. Patent No. 5,639,811). These rejections are respectfully traversed because neither piece of cited art teaches a pressure sensitive adhesive composition which has from about 8% to about 30% by weight of at least one nitrogen containing monomer, as recited in claim 1. Additionally, neither piece of cited art is enabling for a pressure sensitive adhesive as recited in pending claim 1.

The invention, in one embodiment as presently claimed, relates to a pressure sensitive adhesive comprising a copolymer comprising:

- (a) a major amount of at least one acrylate or methacrylate ester,
- (b) from about 8% to about 30% by weight of at least one nitrogen containing monomer,
- (c) from about 0.5% to about 15% by weight of at least one unsaturated carboxylic acid, and
- (d) at least one cross linkable monomer.

In another embodiment, as presently claimed the pressure sensitive adhesive of the present invention comprises a blend of:

- (1) a first pressure sensitive adhesive comprising:
  - (a) a major amount of at least one acrylate or methacrylate ester;

- (b) from about 8% to about 30% by weight of at least one nitrogen containing monomer;
  - (c) from about 0.5% to about 15% by weight of at least one unsaturated carboxylic acid; and
  - (d) at least one cross linkable monomer, and
- (2) a second pressure sensitive adhesive comprising:
- (a) a major amount of at least one acrylate or methacrylate ester;
  - (b) from about 0.5% to about 10% by weight of at least one nitrogen containing monomer;
  - (c) from about 0.5% to about 15% by weight of an unsaturated carboxylic acid; and
  - (d) at least one cross linkable monomer.

In yet another embodiment, as presently claimed the invention relates to a pressure sensitive adhesive comprising a blend of:

- (1) a first pressure sensitive adhesive comprising:
- (a) a major amount of at least one acrylate or methacrylate ester;
  - (b) from about 8% to about 30% by weight of at least one nitrogen containing monomer; and
  - (c) at least one unsaturated carboxylic acid, and
- (2) a second pressure sensitive adhesive comprising:
- (a) a major amount of at least one acrylate or methacrylate ester;
  - (b) from about 0.5% to about 10% by weight of at least one nitrogen containing monomer;
  - (c) at least one unsaturated carboxylic acid; and
  - (d) at least one cross linkable monomer.

Mallya et al. relates to pressure-sensitive adhesive compositions formed of copolymers containing essentially no cross-linking when polymerized and which contain on a copolymerized basis:

- (1) from about 0.1% to about 2% by weight of glycidyl monomer;
- (2) about 1% to about 20% by weight, preferably about 1% to about 10% by weight, of an N-vinyl lactam monomer;
- (3) from 0% to about 15% by weight of an ethylenically unsaturated carboxylic acid;
- (4) from about 55% to about 85% by weight an alkyl acrylate or methacrylate ester containing from 4 to about 12 carbon atoms in the alkyl group;
- (5) from 0% to 35% by weight of an alkyl acrylate or methacrylate ester containing less than 4 carbon atoms in the alkyl group; and
- (6) optionally, one or more other monomers employed to tailor polymer properties, such as glass transition temperature, to end use applications.

As can be seen from the Examples contained in Mallya et al., the actual amount of nitrogen containing monomer used in the adhesive of Mallya et al. is at the low end of the disclosed ranges. For example, at best, the amount of nitrogen containing monomer contained in Example 1 of Mallya et al. can be calculated as follows:

423 g of 2-ethyl hexyl acrylate  
145 g of methyl acrylate  
3.15 g of glycidyl methacrylate  
12.6 g of N-vinyl pyrrolidone  
44.1 g of acrylic acid  
627.85 g – Total Weight of Monomer Mixture

Given the above amounts, as noted in Example 1 of Mallya et al., the weight percent of nitrogen containing monomer present in the monomer mixture is (12.6 g) / (627.85 g).

This turns out to be 2.0% by weight of a nitrogen containing monomer.

The amount of nitrogen containing monomer present in the monomer mixture of Example 2 can be calculated as follows:

453.6 g of Isooctyl acrylate  
100.8 g of methyl acrylate  
6.3 g of glycidyl methacrylate  
25.2 g of N-vinyl caprolactam  
44.1 g of acrylic acid  
0.945 g of Vazo 64  
630.945 g – Total Weight of Monomer Mixture

Given the above amounts, as noted in Example 2 of Mallya et al., the weight percent of nitrogen containing monomer present in the monomer mixture is (25.2 g) / (630.945 g).

This turns out to be 3.99% by weight of a nitrogen containing monomer.

The amount by weight of the nitrogen containing monomer in the monomer mixtures of the remaining Examples of Mallya et al. can be summarized as follows:

Example 4: 2% by weight nitrogen containing monomer;  
Example 5: 4% by weight nitrogen containing monomer;  
Control 1: No nitrogen containing monomer;  
Control 2: 2% by weight nitrogen containing monomer;  
Control 3: No nitrogen containing monomer;  
Control 4: No nitrogen containing monomer;  
Control 5: No nitrogen containing monomer;

- Control 6: No nitrogen containing monomer;  
Control 7: No nitrogen containing monomer; and  
Control 8: No nitrogen containing monomer.

In view of the above, Mallya et al. fails to teach and is non-enabling for a pressure sensitive adhesive composition in accordance with that recited in pending claim 1 because Mallya et al. fails to contain a specific example to a pressure sensitive adhesive which is formed from a monomer charge having more than 4% by weight of a nitrogen containing monomer. Accordingly, given the subject matter of the claims as presently pending, Mallya et al. cannot anticipate claims 1, 3 to 8, 10 to 17 and 19 to 21.

Plamthottam et al. relates to tackified pressure sensitive adhesive compositions which on a copolymerized basis comprise:

- (1) from about 55 to about 85% by weight of an alkyl acrylate and/or alkyl methacrylate ester containing 4 to about 12 carbon atoms in the alkyl group;
- (2) from 0 to about 35% by weight of an alkyl acrylate and/or alkyl methacrylate ester containing 1 to about 4 carbon atoms in the alkyl group;
- (3) from about 0.01 to about 2% by weight of a glycidyl monomer;
- (4) a positive amount up to about 15%, preferably from about 5% to about 13% by weight of an unsaturated carboxylic acid; and
- (5) 0 to about 30% by weight of an activator moiety such as a vinyl lactam (e.g., N-vinyl pyrrolidone or N-vinyl caprolactam).

As can be seen from the Examples contained in Plamthottam et al., the actual amount of nitrogen containing monomer used in the adhesive of Plamthottam et al. is at the low end of the disclosed ranges. For example, at best the amount of nitrogen

containing monomer contained in Example 1 of Plamthottam et al. can be calculated as follows:

423 g of 2-ethyl hexyl acrylate  
145 g of methyl acrylate  
3.15 g of glycidyl methacrylate  
12.6 g of N-vinyl pyrrolidone  
44.1 g of acrylic acid  
627.85 g – Total Weight of Monomer Mixture

Given the above amounts, as noted in Example 1 of Plamthottam et al., the weight percent of nitrogen containing monomer present in the monomer mixture is  $(12.6 \text{ g}) / (627.85 \text{ g})$ . This turns out to be 2.0% by weight of a nitrogen containing monomer.

The amount by weight of the nitrogen containing monomer in the monomer mixtures of the remaining Examples of Plamthottam et al. can be summarized as follows:

Example 2: 2% by weight nitrogen containing monomer;  
Example 3: 2% by weight nitrogen containing monomer;  
Example 4: No nitrogen containing monomer;  
Example 5: No nitrogen containing monomer;  
Example 6: No nitrogen containing monomer;  
Example 7: No nitrogen containing monomer;  
Control A: No nitrogen containing monomer;  
Control B: No nitrogen containing monomer;  
Control C: No nitrogen containing monomer;

Control D: No nitrogen containing monomer; and

Control E: No nitrogen containing monomer.

In view of the above, Plamthottam et al. fails to teach and is non-enabling for a pressure sensitive adhesive composition in accordance with that recited in pending claim 1 because Plamthottam et al. fails to contain a specific example to a pressure sensitive adhesive which is formed from a monomer charge having more than 4% by weight of a nitrogen containing monomer. Accordingly, given the subject matter of the claims as presently pending, Plamthottam et al. cannot anticipate claims 1, 3 to 8, 10 to 17 and 19 to 21.

Since neither Mallya et al. nor Plamthottam et al. teach and enable a pressure sensitive adhesive composition as recited in pending claim 1, claims 1, 3 to 8, 10 to 17 and 19 to 21 cannot be anticipated by the cited art.

V. The 35 U.S.C. § 103(a) Rejections:

Claim 2 has been rejected under 35 U.S.C. § 103(a) over Mallya et al. The teachings of Mallya et al. are discussed above in detail. Additionally, claim 18 has been rejected under 35 U.S.C. § 103(a) over Plamthottam et al. in view of Coopridier et al. (U.S. Patent No. 5,215,818).

It is again noted that both Mallya et al. and Plamthottam et al., which are discussed above in detail, fail to teach and/or enable a pressure sensitive adhesive composition having greater than 4% by weight of a nitrogen containing monomer therein.

Coopridier et al. relates to pressure sensitive adhesive compositions which include solid, polymeric, acrylate, inherently tacky, infusible, solvent-insoluble, solvent-dispersible, elastomeric microspheres, and at least about 1% of a micromolecular monomer-containing (macromonomer-containing) elastomeric binder copolymer which



have a glass transition temperature of less than -20 degrees C. Additionally, the pressure sensitive adhesive compositions of Coopridier et al. can optionally include a plasticizer.

Coopridier et al. fails to cure the deficiencies of Plamthottam et al. This is because Coopridier et al. fails to teach or suggest pressure sensitive adhesive compositions which have from about 8% to about 30% by weight of at least one nitrogen containing monomer.

As shown in Figure 2 and described in the text of the application as filed, as the amount of nitrogen containing monomer in the claimed pressure sensitive adhesives increases, Rivet performance after thermal aging is subject to less degradation. Thus, when a higher amount of nitrogen containing monomer is utilized in the claimed pressure sensitive adhesives, Rivet performance is less likely to degrade over time due to thermal aging. In particular, Table 3 of the present specification documents the results obtained from samples containing 2 (the Control, see Table 2 for the amount), 8, 10, 12 and 30 weight percent nitrogen containing monomer.

Since both Mallya et al. and Plamthottam et al. fail to teach and/or enable a pressure sensitive adhesive containing more than 4 weight percent nitrogen containing monomer, one of ordinary skill in the art would not have been motivated by the disclosure contained in Mallya et al. and/or Plamthottam et al. to prepare a pressure sensitive adhesive according to pending claims 2 and/or 18. This is because the amount of nitrogen containing monomer taught/enable by both Mallya et al. and Plamthottam et al. is more in line with the amount of nitrogen containing monomer utilized in the Control Example of Table 3 of the present application. As evidenced by the data contained in Table 3, a pressure sensitive adhesive composition which contains a low amount of nitrogen containing monomer fails to yield desired Rivet performance over time.

On the other hand, the Applicants have discovered that by substantially increasing the amount of nitrogen containing monomer in the presently claimed pressure sensitive adhesive compositions, one unexpectedly obtains a pressure sensitive adhesive with good Rivet performance over time while not adversely degrading the adhesion properties of such a pressure sensitive adhesive.

As such, the Mallya et al. and/or the combination of Plamthottam et al. and Coopridier et al. cannot render obvious claims 2 and 18 since these claims depend directly or indirectly from claim 1.

Claims 22 to 24, 25 to 35, 37 to 39, 40 to 43 and 45 have all been rejected under 35 U.S.C. § 103(a) over Plamthottam et al. in view of Mallya et al. The teachings of Plamthottam et al. and Mallya et al. are discussed above in detail.

Based upon the disclosure contained therein, one of ordinary skill in the art would not have been motivated to produce a pressure sensitive adhesive in accordance with the "formulas" of claims 22 and 25. Neither Plamthottam et al. nor Mallya et al. provide the motivation necessary to cause one of ordinary skill in the art to produce a pressure sensitive adhesive containing an increased amount of nitrogen containing monomer therein which yields a pressure sensitive adhesive with improved Rivet performance over time while not adversely degrading the adhesion properties of the pressure sensitive adhesive.

Additionally, neither Plamthottam et al. nor Mallya et al. provide the motivation necessary to cause one of ordinary skill in the art to produce a blended pressure sensitive adhesive, as recited by pending claims 22 and 25, which has both improved Rivet performance over time and does not suffer from degraded adhesion properties.

Accordingly, neither Plamthottam et al. nor Mallya et al. can render obvious claims 22 and 25. Since claims 24, 26 to 35, 37 to 39, 40 to 43 and 45 all depend directly or indirectly from claims 22 and 25, these claims are non-obvious as well.

Thus, withdrawal of the above-mentioned obvious rejections is believed to be warranted and action to this end is respectfully requested.

VI. Conclusion:

Thus, withdrawal of the above-mentioned rejections and allowance of claims 1 to 46 and 58 to 60 is respectfully requested.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988 under Attorney Docket No. AVERP21511USA.

Respectfully submitted,  
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## **APPENDIX**

The following contains a detailed listing of the changes made to the specification and the claims. Please note, underlining denotes additions and ~~[bracketed-strikeout]~~ denotes deletions.

### In The Specification:

The specification has been amended as follows:

#### Page 3, lines 13-20:

US 4,988,742 deals with a PSA terpolymer comprising a) from 60-95 parts of a photopolymerized polymer of monomers containing i) 60-96 parts alkyl acrylate, ii) 2 to 15 parts of a strongly polar copolymerizable monomer, iii) 2 to 25 parts of a strongly polar and moderately ~~[polar]~~ polar monomer, b) 40 to 5 parts of hydrogenated rosin ester tackifier and c) 0.01 to 1 parts of a photoinitiator. These tackified polymers are alleged to have lower Tg than polymers of the same composition without tackifier. These polymers are alleged to have significantly higher shear and adhesion to lower energy substrates.

#### Page 4, line 22 to page 5, line 2:

The pressure sensitive adhesives provide improved removability of the laminate from the substrate even after aging for extended time periods. The cohesive integrity of the laminate is reflected in the ability to peel it off cleanly from the substrate[-]. Superior performance requires the presence of both acid and nitrogen containing monomers. In one embodiment, superior performance is obtained with additionally using the appropriate cast vinyl facestock.

#### Page 5, lines 13-26:

As described above the present invention relates to adhesives, adhesive blends and laminates prepared therefrom. One aspect of the present invention provides a laminate that can be hand applied to sides of vehicles ~~[vehicals]~~ that often contain uneven surfaces like rivets, corrugations, etc. The adhesives are co-polymers of an acrylate or methacrylate ester, a nitrogen containing monomer, an unsaturated carboxylic acid, and optionally a monomer containing at least one cross-linkable site. The polymers generally have a glass transition temperature of less than about 10°C, or preferably less than about -0°C, or most preferably less than about -15°C. The polymers typically have a

weight average molecular weight of at least about 200,000, preferably from about 200,000 to about 700,000. Here and elsewhere in the specification and claims the range and ratio limits may be combined. The weight average molecular weight was determined by size exclusion chromatography using polystyrene for calibration.

Page 17, lines 10-20:

The pressure sensitive adhesive may also contain a compatible [~~compatible~~] tackifier. Tackifiers, are generally hydrocarbon resins, wood resins, rosins, rosin derivatives, and the like, which when present in concentrations ranging from about 5 to about 50 by weight of the total adhesive composition, more preferably from about 10 to about 20 by weight, impart pressure-sensitive adhesive characteristics to the elastomeric polymer adhesive formulation. It is contemplated that any tackifier known by those of skill in the art to be compatible with elastomeric polymer compositions may be used with the present embodiment of the invention. Examples of useful tackifiers include Foral 85 & Herculyn-D (rosin esters available from Hercules), Nirez 2019 (terpene phenolic resin available from Arizona Chemical), etc.

Page 20, lines 1-22:

\_\_\_\_\_The release liner is adhered to opposite surface of the pressure sensitive adhesive layer allowing for separating with optimum effort to expose the adhesive surface prior to application on a desired substrate[-]. The low energy release is typically obtained using the appropriate polydimethylsilicone polymer coating available from either solvent based or solventless silicone coating that could be polymerized on the web using a variety of curing techniques including UV, thermal often catalyzed by metals like tin, platinum, etc. Other desirable properties like adhesive repositionability and/or air egress may also be obtained by modifying the release surface. For example, roughening the release surface as taught by Mel Freedman (US 4,713,273) helps avoid problems of air entrapment during application of laminates to substrates. This patent is incorporated by reference. The facestock may also have a tie layer between the pressure sensitive adhesive and the facestock. One useful tie layer is polyamides such as Platamid available from Elf Atochem. In one embodiment, the facestock is any vinyl facestock used for signage, such as a polyvinylhalide polymers, which include polyvinyl chloride and polyvinylidene fluoride. These layers may have additives to improve their performance such as plasticizers, antioxidants and UV radiation absorbers. The pressure sensitive adhesive is also releasably adhered to

a release liner such as a silicone liner. In one embodiment, the vinyl film has plasticizers. The vinyl film may also be composed of vinyl chloride copolymerized with acrylate, acrylic acid or blended with other polymers including polyurethane, rubber, etc.

Page 20, line 23 to page 21, line 11:

The adhesives are covalently cross linked by the action [~~action~~] of the cross linkable monomer during polymerization. In one embodiment, the adhesives cross-linked during post curing of the adhesive after coating. This can be achieved via heat, actinic, electron beam radiation or metal based ionic cross-linking between groups like carboxy, hydroxyl, etc; and/or catalysts that induce reaction between functional groups such as epoxy, carboxy, hydroxy, amino, etc., and/or multifunctional additives such as di-isocyanates, etc. The cross linking agents include aluminum acetylacetonate (AAA), a polyamine, such ethylenepolyamines which include ethylenediamine, diethylenetriamine (DETA), triethylenediamine (TEDA), tetraethylenepentamine (TEPA), multivalent metal complexes, such as titanium esters ( for example Tyzor available from Du Pont), etc. These materials are usually added to the adhesive in solution with a chemical concentration of about 3% to about 15%, or from about 5% to about 10% weight. The crosslinking agent is typically used at a level from about 0.05% to about 1%, or from about 0.075% to about 0.75%, or from about 0.1% to about 0.5% by weight.

Page 22, lines 3 to 22:

Samples of the above adhesives were tested for rivet performance. Test laminate samples (prepared as described in the previous paragraph) approximately 3 x 6 inches [~~inch~~] in dimension[s] are applied over test panels painted with white, glossy, polyester paint (Polar White) and specially riveted with aluminum rivets. Application is done so as to minimize forming any wrinkles especially around these rivet heads, e.g. Brazier rivet heads, 0.45" (diameter) X 0.13" (height) X 0.3" (shaft diameter). Entrapped air is released with the use of pin pricks while a brush with hard bristles and plastic squeegee is used to get the best conformation of the film around the rivet. After 2 days, the panels are placed under a microscope (Olympus SZH zoom stereo microscope using 0.5x objective), an [~~the~~] image is captured using a Pulnax CCD camera, and the image is analyzed using [~~the~~] Image Pro Plus (version 3.0, Media Cybernetics, Silver Spring, Maryland)\_software. This allowed for quantifying the tenting of the vinyl films around the test panel rivets accurately. The tent area is defined as the difference between the area

enclosed by the two contact perimeters measured in the vicinity of the rivet head [the] perimeter where the vinyl breaks contact with the rivet and the perimeter where the vinyl regains contact with the surrounding flat substrate.

Page 22, line 23 to page 23, line 2:

Fig. 2 shows how higher levels of NVP help retain good Rivet performance even after thermal aging[.]. The alkyl acrylate fractions were adjusted to accommodate the changing levels of NVP within these polymer compositions. The level of acid and crosslinker was kept the same in all these compositions. The control test sample containing 2% NVP has been described US Patent No. 4,812,541, issued to Mallya et al. and is commercially available from Avery Dennison as Polytex 7000 adhesive.

Page 23, lines 11-12:

<sup>a</sup>Peels were measured at room temperature using 12 inches/minute cross head speed after 12 minute [minture] dwell on stainless steel panels.

Page 23, line 17 to page 24, line 4:

The high shears measured with Example [B] E adhesive reflects the high cohesive strength of these high NVP containing polymers. The high shear observed reflects the increased cohesive strength which, in turn, is believed to be instrumental towards imparting good long term removability performance. Unexpectedly, this is obtained without compromising the peel adhesion properties.

Page 25, lines 7-9:

The initial and aged rivet performance have been listed in Table 3. 3M's Controltac<sup>™</sup> 180-10 Plus<sup>™</sup> [B] is a competitive product which is provided as a comparison.

#### In The Claims:

The amendments to claims 1, 4, 8, 9, 11, 13, 14, 16, 18, 22, 25, 30, 33, 36, 37, 38, 39, 41 and 42 are as follows:

1. (Amended) A pressure sensitive adhesive comprising a copolymer which comprises: (a) a major amount of at least one acrylate or methacrylate ester[;]; (b) from about 8% to about 30% by weight of at least one nitrogen containing monomer[;]; (c) from about 0.5% to about 15% by weight of at least one unsaturated carboxylic acid[;]; and (d) at least one cross linkable monomer.

4. (Amended) The adhesive of claim 1 wherein (a) is an acrylate or methacrylate ester ~~[containing]~~ which contains from about one to about 24 carbon atoms in the ester [alkyl] group.

8. (Amended) The adhesive of claim 1 wherein (c) comprises one or more acids selected from acrylic acids, methacrylic acids, fumaric acid, maleic acid or anhydride, allyl acid; and mixtures of two [of] or more thereof.

9. (Amended) The adhesive of claim 1 wherein (c) is present in an amount from about [0.5]2% to about [15]12%.

11. (Amended) The adhesive of claim 10 wherein (d) ~~[comprises]~~ the cross linkable monomer is selected from one or more glycidyl allyl esters, one or more epoxy acrylate esters or one or more methacrylate esters[; and glycidyl allyl esters].

13. (Amended) The adhesive of claim 1 further comprising (e) at least one alkyl acrylate or [and] at least one methacrylate ester, wherein the at least one alkyl acrylate or the at least one methacrylate ester [containing] contain less than 4 carbon atoms in the alkyl group.

14. (Amended) The adhesive of claim 13 wherein (e) comprises one or more acrylates selected from methyl acrylate, ethyl acrylate, methyl methacrylate, and ethyl methacrylate[; and mixtures of two or more thereof].

16. (Amended) The adhesive of claim 15 wherein (f) the co-polymerizable monomer comprises one or more co-polymerizable monomers selected from polystyryl ethyl methacrylate, acetoacetoxy ethyl methacrylate, alpha olefins, and vinyl esters of alkanic acids containing more than three carbon atoms.

18. (Amended) The adhesive of claim 17 wherein the plasticizer is selected from an adipate, a phosphate, a benzoate, a phthalate esters, a polyalkylene oxide, a sulfonamide, and mixtures of two [of] or more thereof.



22. (Amended) A pressure sensitive adhesive comprising a blend of: (1) the pressure sensitive adhesive of claim 1 and (2) a second pressure sensitive adhesive comprising: (a) a major amount of at least one acrylate or methacrylate ester<sub>i</sub>; (b) from about 0.5% to about 10% by weight of at least one nitrogen containing monomer<sub>i</sub>; (c) from about 0.5% to about 15% by weight of an unsaturated carboxylic acid<sub>i</sub>; and (d) at least one cross linkable monomer.

25. (Amended) A pressure sensitive adhesive comprising a blend of: (1) a pressure sensitive adhesive comprising: (a) a major amount of at least one acrylate or methacrylate ester<sub>i</sub>; (b) from about 8% to about 30% by weight of at least one nitrogen containing monomer<sub>i</sub>; and (c) at least one unsaturated carboxylic acid, and (2) a second pressure sensitive adhesive comprising: (a) a major amount of at least one acrylate or methacrylate ester<sub>i</sub>; (b) from about 0.5% to about 10% by weight of at least one nitrogen containing monomer<sub>i</sub>; (c) at least one unsaturated carboxylic acid<sub>i</sub>; and (d) at least one crosslinkable monomer.

30. (Amended) The adhesive of claim 25 wherein (c) of (1) and (2) each comprise at least one acid independently [comprises] selected from acrylic acids, methacrylic acids, fumaric acid, maleic acid or anhydride, allyl acid, [or] and mixtures of two [of] or more thereof.

33. (Amended) The ~~[adhesion]~~ adhesive of claim 32 wherein (d) is at least one glycidyl monomer.

36. (Amended) The adhesive of claim 25 wherein (2) further comprises ~~[(d) at least one cross linkable monomer]~~ (e) at least one alkyl acrylate and methacrylate ester containing less than 4 carbon atoms in the alkyl group.

37. (Amended) The ~~[adhesion]~~ adhesive of claim ~~[36]~~ 25 wherein (d) is at least one glycidyl monomer.

38. (Amended) The adhesive of claim ~~[36]~~ 25 wherein (d) ~~[comprises] the at least one crosslinkable monomer is selected from~~ epoxy acrylates or methacrylate esters~~[or], and~~ glycidyl allyl esters.

39. (Amended) The adhesive of claim ~~[36]~~ 25 wherein (d) is present in an amount from about 0.05% to 2%.

41. (Amended) The adhesive of claim 40 wherein (e) the at least one alkyl acrylate is [comprises] methyl acrylate, ethyl acrylate, methyl methacrylate<sub>i</sub>; or ethyl methacrylate<sub>i</sub>; and mixtures of two or more thereof.

42. (Amended) The adhesive of claim 41 wherein (f) comprises one or more co-polymerizable monomers selected from polystyryl ethyl methacrylate, acetoacetoxyl ethyl methacrylate, alpha olefins, and vinyl esters of alkanolic acids containing more than three carbon atoms.